



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/912,211

07/24/2001

Michael J. Chaloner

10004955-1

6430

7590

11/17/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collin, CO 80527-2400

EXAMINER

BROWN, VERNAL U

ART UNIT

PAPER NUMBER

2635

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,211

Applicant(s)

CHALONER ET AL.

Examiner

Vernal U Brown

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23,24,26-37,42 and 44-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23,24,26-37,42 and 44-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to communication filed on August 09, 04.

Response to Amendment

The examiner has acknowledged the cancellation of claims 1-22, 25, 38-41, 43 and the addition of claims 51-52.

Information Disclosure Statement

The information disclosure statement filed 8/09/04 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Response to Arguments

Applicant's arguments filed 8/09/04 have been fully considered but they are not persuasive.

Regarding applicant's argument regarding the object detection system and the arrangement of objects in the container, Bowers et al. teaches an object detection system for detecting object with attached RFID tag that is placed in a bin (col. 12 lines 50-60). Bowers et al. teaches the linear arrangement of the items (22) contained in a library (figure 9) representing a standard arrangement of items in a storage area. Bowers et al. teaches a transmitter (100) of signal energy and a plurality of receivers (RFID device)

Regarding applicant's argument regarding claim 33, Bowers et al. teaches transmitting signal at the selected resonant frequency (col. 8 lines 35-43) and modifying

Art Unit: 2635

the signal by changing the resonant frequency of the tag device (col. 8 lines 54-60) and tag device further providing identifying information of the article (col. 8 lines 63-66). The identification information of the article is used to identify the subset (figure 4) the article belong to.

Regarding applicant's argument regarding claim 42, Bowers et al. teaches tape cartridges are included in the articles contained in the container (col. 7 lines 1-5) and also teaches a linear arrangement of the items (22) contained in a library (figure 9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-29, 32-37, 42, 44-47, and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418.

Regarding claims 23 and 29, Bowers et al. teaches a container (32) comprising: object presence detection equipment (100) internal to said container (figure 6), said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a set of objects (22) for object presence detection internal to said container (col. 12 lines 62-67). Bowers et al.

Art Unit: 2635

also teaches a container wall substantially surrounding the objects presence detection equipment (figure 6) and an object of the set of objects is operable to modify the transmitted signal energy of a selected frequency to generate the received signal energy of the selected frequency by resonating at the resonant frequency of the tag (col. 8 lines 36-43, col. 8 lines 54-60). Bowers et al. is silent on teaching a linear arrangement of the items in the container (32) but teaches use of a linear arrangement of items 22 contained in a library (figure 9) which represent a standard arrangement of items in a storage area. Bowers et al. is however silent on teaching shielding the interior of the container from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claims 24, 34, and 39, Bowers et al. teaches the set of objects comprises a tape cartridge (col. 6 lines 45-49).

Regarding claims 26 and 35, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claim 27, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having

Art Unit: 2635

associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claims 28, 36, 40, and 46 Bowers et al. teaches the transmitted and said received signal energy is radio frequency (col. 8 lines 42-43).

Regarding claims 32 and 50, Bowers et al. teaches the transmitter and the receiver are combined into one transceiver (figure 3).

Regarding claims 33 and 38, Bowers et al. teaches a method for identifying a subset of objects within a set of objects in a container (col. 12 lines 50-65), said method comprising: transmitting a signal of a selected frequency within said container (col. 12 lines 63-65); modifying said transmitted signal at a selected frequency by at least one object of said set of objects by resonating at a frequency (col. 8 lines 36-43). Bowers et al. also teaches receiving said modified signal within the container; analyzing and processing said received signal (col. 12 line 62-col. 13 line 12) but is however silent on teaching shielding the interior of said container from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claims 37 and 47, Bowers teaches means for modifying comprises resonating at the selected frequency (col. 8 lines 36-43).

Art Unit: 2635

Regarding claim 42, Bowers et al. teaches a tape storage container (32) comprising: object presence detection equipment (100) internal to said container, said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a plurality of tape cartridges (22) (col. 6 lines 66-col. 7 line 5) for object presence detection internal to said container (col. 7 lines 32-40), such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency (col. 8 lines 35-43). Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9). Bowers also teaches the outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges (figure 6) but is silent on teaching metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding (metallic) to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claim 43-44, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Art Unit: 2635

Regarding claim 45, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claim 51, Bowers et al. teaches producing a report based on the analysis of the content of the container (col. 14 lines 4-10) and the report shows the number of members in a subset as shown in figure 7, the subset is based on the location of the items.

Claims 30 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Lastinger U.S Patent 6104311.

Regarding claims 30 and 48, Bowers et al. in view of Francis et al. teaches the tag having a resonant circuit (col. 8 lines 40-42) but is silent in teaching resonating is enhanced by variable resonant material by adjusting the length of the resonating material. Lastinger in an art related tag identification system teaches changing the resonating properties by adjusting the length of the resonating material (col. 8 lines 16-18).

It would have been obvious to one of ordinary skill in the art to enhanced the resonating capability of the tag by adjusting the length of the resonating material in Bowers et al. in view of Francis et al. as evidenced by Lastinger because Bowers et al. in view of Francis et al. suggests the tag having a resonant circuit and Lastinger teaches

Art Unit: 2635

changing the resonating properties by adjusting the length of the resonating material in order to change the resonant frequency.

Claims 31 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Greene et al. U.S Patent 5581257.

Regarding claims 31 and 49, Bowers et al. in view of Francis et al. teaches the tag resonating at a resonant frequency (col. 8 lines 40-42) but is silent in teaching the objects resonate at the same frequency. Greene et al. in an art related radio frequency identification system teaches radio frequency tags having the same resonant frequency (col. 6 lines 27-29) in order to provide the same information.

It would have been obvious to one of ordinary skill in the art for the objects to resonate at the same frequency in Bowers et al. in view of Francis et al. as evidenced by Greene et al. because Bowers et al. in view of Francis et al. suggests the tag resonating at a resonant frequency and adjusting controlling the resonant frequency and Greene et al. teaches radio frequency identification system teaches radio frequency tags having the same resonant frequency in order to provide the same information.

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Chieu et al. U.S Patent 5995019.

Regarding claim 52, Bowers et al. in view of Francis et al. teaches grouping the objects in subset based on the item appropriate location but is silent on teaching each subset is responsive to a different selected frequency. Chieu et al. in an art related method for communicating with RF transponders teaches grouping of tags based on the attribute

Art Unit: 2635

of the signal sent from the base station to the tag. (col.12 lines 3-10) and one skilled in the art recognizes that frequency of a signal is considered its attribute.

It would have been obvious to one of ordinary skill in the art for each subset to be responsive to a different selected frequency in Bowers et al. in view of Francis et al. as evidenced by Chieu et al. because Bowers et al. in view of Francis et al. suggests grouping the objects in subset based on the item appropriate location and Chieu et al. teaches grouping of tags based on the attribute of the signal sent from the base station to the tag in order to isolate a group of tag and one skilled in the art recognizes that frequency of a signal is considered its attribute.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

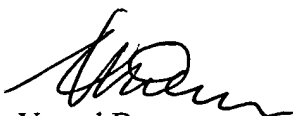
Art Unit: 2635

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-6:30 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown
November 10, 2004

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

